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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/686,779	10/17/2003	Tjaart Andries Du Plessis	33692	7739

20686 7590 03/21/2005

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EXAMINER

BERMAN, SUSAN W

ART UNIT	PAPER NUMBER
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1711

DATE MAILED: 03/21/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/686,779

Applicant(s)

DU PLESSIS ET AL.

Examiner

Susan W Berman

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-25 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1,4,5,7-10 and 16-25 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☒ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 6/04.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

Specification

The disclosure is objected to because of the following informalities: In the first paragraph, the Serial No. of the parent application is missing.

Appropriate correction is required.

Claim Objections

Claims 14-15 are objected to because of the following informalities: Claims 14-15, as written, are dependent from claim 15. It appears the claims should depend from claim 13. Appropriate correction is required.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1, 5, 9, 10 and 16-21 are rejected under 35 U.S.C. 102(b) as being anticipated by Chang (5,952,396). See column 2, lines 14-66, column 3, lines 26-27, column 4, lines 54-63 and Table I, column 5, lines 44-58, and column 7, lines 1-15. Semi-crystalline polyethylene is irradiated at a dose of 10 Mrad to provide material that can be extruded or molded to produce articles. Chang does not teach irradiating in an inert atmosphere or at elevated temperatures. The disclosure of Chang is considered to anticipate the instant claims because it appears that the disclosed irradiation is performed under ambient conditions, in

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the absence of evidence to the contrary. With respect to claim 9, the dose uniformity would be expected to be inherent to the process disclosed, in the absence of evidence to the contrary.

Claims 1, 4, 9, 10, 16, 17, 24 and 25 are rejected under 35 U.S.C. 102(b) as being anticipated by Berejka (4,332,655). Berejka teaches adhesive polymers of ethylene preferably having a low melt index, such as below 50 but not less than 4, (column 2, lines 13-27). Elastomeric polyethylene is also taught (column 2, lines 28-44). Table II shows low melt index adhesive olefin/EPDM blends. Example IV discloses extrusion of the compositions into a sheet material that is then crosslinked by irradiation to provide materials that can be made into heat recoverable articles. Adhesion of extruded and irradiated polymer to steel is taught in column 7, lines 4-13. Berejka does not teach irradiating in an inert atmosphere or at elevated temperatures. The disclosure of Berejka is considered to anticipate the instant claims because it appears that the disclosed irradiation is performed under ambient conditions, in the absence of evidence to the contrary. With respect to claim 9, the dose uniformity would be expected to be inherent to the process disclosed, in the absence of evidence to the contrary.

Claims 1, 9, 10, 16, 17 and 21 are rejected under 35 U.S.C. 102(b) as being anticipated by Lucas et al (5,266,607). Lucas et al teach irradiating polymer compositions such as polyethylenes in air to induce crosslinking. See column 1, lines 18-37, column 3, line 59, to column 4, line 5, column 4, line 65, to column 5, line 25, column 5, lines 50-54, and Example 12. Lucas et al do not teach irradiating at elevated temperatures. The disclosure of Lucas et al is considered to anticipate the instant claims because it appears that the disclosed irradiation in air is performed under ambient temperature, in the absence of evidence to the contrary. With respect to claim 9, the dose uniformity would be expected to be inherent to the process disclosed, in the absence of evidence to the contrary.

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Claims 1, 5, 7-10, 16, 17 and 22 are rejected under 35 U.S.C. 102(b) as being anticipated by Langohr et al (6,500,540). Langohr et al disclose radiation treatment of low density polyethylene. Polyethylene having a density less than 0.89 g/cm^3 and melt index less than 50 g/10 min. is taught. See column 3, lines 25-45, column 5, lines 20-62, column 8, lines 1-21 and lines 46-67, column 22, line 66, to column 23, line 20 and column 24, line 56, to column 25, line 20. Langohr et al do not teach irradiating in an inert atmosphere or at elevated temperatures. The disclosure of Langohr et al is considered to anticipate the instant claims because it appears that the disclosed irradiation is performed under ambient conditions, in the absence of evidence to the contrary. With respect to claims 7 and 8, Langohr et al teach irradiation with 3-35 Mrad (30-350 kGy) thus encompassing the dose range from 4 to 60 kGy in claim 7 and overlapping the dose range in claim 8 wherein the dose is 30 kGy. With respect to claim 9, the dose uniformity would be expected to be inherent to the process disclosed, in the absence of evidence to the contrary.

Allowable Subject Matter

Claims 2, 3, 6, and 11-15 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. The prior art cited herein does not teach the limitations set forth in the dependent claims.

Conclusion

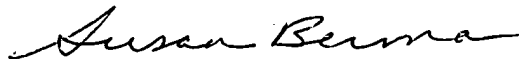
Sovish et al (3,899,807) is cited as art of interest.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Susan W Berman whose telephone number is 571 272 1067. The examiner can normally be reached on M-F 9:30-6:00.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James Seidleck can be reached on 571 272 1078. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Susan W Berman
Primary Examiner
Art Unit 1711

sb
March 18, 2005